



SEQUENCE LISTING

<110> Koichiro KAKU et al.

<120> GENE CODING FOR SCYTALONE DEHYDRATASE EXHIBITING RESISTANCE TO
AGRICULTURAL FUNGICIDAL AGENT

<130> 1254-0258PUS1

<140> US 10/507,132

<141> 2004-09-10

<150> JP 2002-66955

<151> 2002-03-12

<160> 19

<170> PatentIn Ver. 2.1

<210> 1

<211> 516

<212> DNA

<213> Pyricularia oryzae

<220>

<221> CDS

<222> (1)..(516)

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ctg ggc ctc atg act tgc gtc tat gag tgg gca gac agc tac gac tcc	96
Leu Gly Leu Met Thr Cys Val Tyr Glu Trp Ala Asp Ser Tyr Asp Ser	
20 25 30	
aag gac tgg gat agg ctg cga aag gtc att gcg cct act ctg cgc att	144
Lys Asp Trp Asp Arg Leu Arg Lys Val Ile Ala Pro Thr Leu Arg Ile	
35 40 45	
gac tac cgc tcc ttc ctc gac aag ctc tgg gag gca atg ccg gcc gag	192
Asp Tyr Arg Ser Phe Leu Asp Lys Leu Trp Glu Ala Met Pro Ala Glu	
50 55 60	
gag ttc gtc ggc atg gtc tcg agc aag cag atg ctg ggc gac ccc acc	240
Glu Phe Val Gly Met Val Ser Ser Lys Gln Met Leu Gly Asp Pro Thr	
65 70 75 80	
ctc cgc acg cag cac ttc atc ggc ggc acg cgc tgg gag aag gtg tcc	288
Leu Arg Thr Gln His Phe Ile Gly Gly Thr Arg Trp Glu Lys Val Ser	
85 90 95	
gag gac gag gtc atc ggc tac cac cag ctg cgc gtc ccg cac cag agg	336
Glu Asp Glu Val Ile Gly Tyr His Gln Leu Arg Val Pro His Gln Arg	
100 105 110	

tac aag gac acc acc atg aag gag gtc acc atg aag ggc cac gcc cac 384
Tyr Lys Asp Thr Thr Met Lys Glu Val Thr Met Lys Gly His Ala His
115 120 125

tcg gca aac ctt cac tgg tac aag aag atc gac ggc gtc tgg aag ttc 432
Ser Ala Asn Leu His Trp Tyr Lys Lys Ile Asp Gly Val Trp Lys Phe
130 135 140

gcc ggc ctc aag ccc gat atc cgc tgg ggc gag ttc gac ttt gac agg 480
Ala Gly Leu Lys Pro Asp Ile Arg Trp Gly Glu Phe Asp Phe Asp Arg
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atc ttt gag gac gga cgg gag acc ttt ggc gac aaa 516
Ile Phe Glu Asp Gly Arg Glu Thr Phe Gly Asp Lys
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<210> 2

<211> 172

<212> PRT

<213> *Pyricularia oryzae*

<400> 2

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20 25 30

Lys Asp Trp Asp Arg Leu Arg Lys Val Ile Ala Pro Thr Leu Arg Ile
35 40 45

Asp Tyr Arg Ser Phe Leu Asp Lys Leu Trp Glu Ala Met Pro Ala Glu
50 55 60

Glu Phe Val Gly Met Val Ser Ser Lys Gln Met Leu Gly Asp Pro Thr
65 70 75 80

Leu Arg Thr Gln His Phe Ile Gly Gly Thr Arg Trp Glu Lys Val Ser
85 90 95

Glu Asp Glu Val Ile Gly Tyr His Gln Leu Arg Val Pro His Gln Arg
100 105 110

Tyr Lys Asp Thr Thr Met Lys Glu Val Thr Met Lys Gly His Ala His
115 120 125

Ser Ala Asn Leu His Trp Tyr Lys Lys Ile Asp Gly Val Trp Lys Phe
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Ile Phe Glu Asp Gly Arg Glu Thr Phe Gly Asp Lys
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<210> 3
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 <213> *Pyricularia oryzae*

<220>
 <221> CDS
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Met Gly Ser Gln Val Gln Lys Ser Asp Glu Ile Thr Phe Ser Asp Tyr
  1              5              10              15

ctg ggc ctc atg act tgc gtc tat gag tgg gca gac agc tac gac tcc      96
Leu Gly Leu Met Thr Cys Val Tyr Glu Trp Ala Asp Ser Tyr Asp Ser
              20              25              30

aag gac tgg gat agg ctg cga aag gtc att gcg cct act ctg cgc att     144
Lys Asp Trp Asp Arg Leu Arg Lys Val Ile Ala Pro Thr Leu Arg Ile
              35              40              45

gac tac cgc tcc ttc ctc gac aag ctc tgg gag gca atg ccg gcc gag     192
Asp Tyr Arg Ser Phe Leu Asp Lys Leu Trp Glu Ala Met Pro Ala Glu
              50              55              60

gag ttc gtc ggc atg gtc tgc agc aag cag gtg ctg ggc gac ccc acc     240
Glu Phe Val Gly Met Val Ser Ser Lys Gln Val Leu Gly Asp Pro Thr
              65              70              75

ctc cgc acg cag cac ttc atc ggc ggc acg cgc tgg gag aag gtg tcc     288
Leu Arg Thr Gln His Phe Ile Gly Gly Thr Arg Trp Glu Lys Val Ser
              85              90              95

gag gac gag gtc atc ggc tac cac cag ctg cgc gtc ccg cac cag agg     336
Glu Asp Glu Val Ile Gly Tyr His Gln Leu Arg Val Pro His Gln Arg
              100             105             110

tac aag gac acc acc atg aag gag gtc acc atg aag ggc cac gcc cac     384
Tyr Lys Asp Thr Thr Met Lys Glu Val Thr Met Lys Gly His Ala His
              115             120             125

tcg gca aac ctt cac tgg tac aag aag atc gac ggc gtc tgg aag ttc     432
Ser Ala Asn Leu His Trp Tyr Lys Lys Ile Asp Gly Val Trp Lys Phe
              130             135             140

gcc ggc ctc aag ccc gat atc cgc tgg ggc gag ttc gac ttt gac agg     480
Ala Gly Leu Lys Pro Asp Ile Arg Trp Gly Glu Phe Asp Phe Asp Arg
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atc ttt gag gac gga cgg gag acc ttt ggc gac aaa                      516
Ile Phe Glu Asp Gly Arg Glu Thr Phe Gly Asp Lys
              165             170

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<210> 4

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<213> Pyricularia oryzae

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20 25 30
Lys Asp Trp Asp Arg Leu Arg Lys Val Ile Ala Pro Thr Leu Arg Ile
35 40 45
Asp Tyr Arg Ser Phe Leu Asp Lys Leu Trp Glu Ala Met Pro Ala Glu
50 55 60
Glu Phe Val Gly Met Val Ser Ser Lys Gln Val Leu Gly Asp Pro Thr
65 70 75 80
Leu Arg Thr Gln His Phe Ile Gly Gly Thr Arg Trp Glu Lys Val Ser
85 90 95
Glu Asp Glu Val Ile Gly Tyr His Gln Leu Arg Val Pro His Gln Arg
100 105 110
Tyr Lys Asp Thr Thr Met Lys Glu Val Thr Met Lys Gly His Ala His
115 120 125
Ser Ala Asn Leu His Trp Tyr Lys Lys Ile Asp Gly Val Trp Lys Phe
130 135 140
Ala Gly Leu Lys Pro Asp Ile Arg Trp Gly Glu Phe Asp Phe Asp Arg
145 150 155 160
Ile Phe Glu Asp Gly Arg Glu Thr Phe Gly Asp Lys
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<210> 5
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chemically synthesized primer

<400> 5
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<211> 22
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized primer

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: chemically synthesized primer

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<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: chemically synthesized primer

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<210> 9

<211> 23

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: chemically synthesized primer

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<210> 10

<211> 20

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: chemically synthesized primer

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<210> 11

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: chemically synthesized primer

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<210> 12

<211> 27

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: chemically synthesized primer

<400> 12

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<210> 13

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<212> DNA

<213> *Pyricularia oryzae*

<400> 13

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aggacaccac catgaaggag gtcacatga agggccacgc cactcggca aaccttact 480
ggtacaagaa gatcgacggc gtctggaagt tcgccggcct caagcccgat atccgctggg 540
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<210> 14

<211> 545

<212> DNA

<213> *Pyricularia oryzae*

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cagctacgac tccaaggact gggataggct gcgaaaggctc attgcgcta ctctgcgcat	180
tgactaccgc tccttcctcg acaagctctg ggaggcaatg ccggccgagg agttcgtcgg	240
catggtctcg agcaagcagg tgctgggcca cccaccctc cgcacgcagc acttcacg	300
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ctcggcaaac cttcactggc acaagaagat cgacggcgctc tggaaagtgc ccggcctcaa	480
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ctttg	545

<210> 15
 <211> 538
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 <213> *Pyricularia oryzae*

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gactccaagg actgggatag gctgcgaaag gtcattgcgc ctactctgcg cattgactac	180
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cagaggtaca aggacaccac catgaaggag gtcaccatga agggccacgc cactcggca	420
aaccttact ggtacaagaa gatcgacggc gtctggaagt tcgccgcct caagcccgc	480
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 <213> *Pyricularia oryzae*

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cagactacct gggcctcatg acttgctct atgagtgggc agacagctac gactccaagg	180
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tcgacaagct ctgggaggca atgccggccg aggagttcgt cggcatggtc tcgagcaagc	300
aggtgctggg cgaccccacc ctccgcacgc agcacttcat cggcggcacg cgctgggaga	360
aggtgtccga ggacgaggtc atcggctacc accagctgcg cgtcccgcac cagaggtaca	420
aggacaccac catgaaggag gtcaccatga agggccacgc cactcggca aaccttact	480
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cctcatgact tgcgtctatg agtgggcaga cagctacgac tccaaggact gggataggct	240
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atggtctcga gcaagcaggt gctgggcgac cccaccctcc gcacgcagca cttcatcggc	480
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ccgcaccaga ggtacaagga caccaccatg aaggagggtca ccatgaaggg ccacgcccac	600
tcggcaaacc ttactggta caagaagatc gacggcgtct ggaagtctgc cggcctcaag	660
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<210> 18
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 <212> DNA
 <213> *Pyricularia oryzae*

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ttcaaaagag cgatgagata accttctcag gtgagcataa tatccccctc caaaaagaaa	120

atagcgggtga agccaccaac gacagtaccg ctgaccctaa ttcccctcca gactacctgg 180
 gcctcatgac ttgcgtctat gagtgggcag acagctacga ctccaaggac tgggataggc 240
 tgcgaaaggt cattgcgcct actctgcgcg tatgttccgc cctgccatgt ttatttttac 300
 tttcccacac caaatccaga ctttaacagc gacgaccaa aaaaaaaaaa acagattgac 360
 taccgctcct tctcgacaa gctctgggag gcaatgccgg ccgaggagtt cgtcggcatg 420
 gtctcgagca agcaggtgct gggcgacccc accctccgca cgcagcactt catcggcggc 480
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 gcaaacccttc actggtacaa gaagatcgac ggcgtctgga agttcgccgg cctcaagccc 660
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 ggcgacaaa 729

<210> 19
 <211> 33
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide derived from
 Pyricularia oryzae

<400> 19

Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg Gly Ser Pro Gly
 1 5 10 15

Ile Arg Leu Val Lys Ala Ala Asn Met Gly Ser Gln Val Gln Lys Ser
 20 25 30

Asp